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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/507,004	02/22/2000	Stefanos Manganaris	RSW9-99-148	2371

7590 10/31/2002

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EXAMINER

BACHNER, REBECCA M

ART UNIT PAPER NUMBER

3623

DATE MAILED: 10/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/507,004

Applicant(s)

MANGANARIS ET AL.

Examiner

Rebecca M Bachner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s)
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Detailed Action

This is office action is on the merit. Claims 1-5 are pending. Claims 6-15 have been added.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (U.S. P.N. 6,377,934) in view of Jacobi et al. (U.S. P.N. 6,317,722).

As per claims 1, 6 and 11, Chen et al. disclose a computer-implemented method, a computer program product recorded on a computer readable medium, and a system of processing market research data including aggregate sales data concerning items grouped in a plurality of market baskets and sold during retail sales transactions of a retailer, said method comprising the steps of (see column 3, lines 47-50):

Receiving analysis parameters from said retailer for use in analyzing said market research data (see column 2, lines 14-25, analysis parameters are received for analyzing the enterprise data);

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Receiving said aggregate sales data (see column 2, lines 40-45, aggregate data is received); and

Analyzing said aggregate sales data based on said market basket groupings and determining if any of said market basket groupings display characteristics identified by said analysis parameters (see column 2, lines 51-63, and column 5, lines 51-61, the data is analyzed based upon characteristics).

Chen et al. does not explicitly disclose that for all market basket groupings which have been determined to display said characteristics, enhancing said aggregate sales data concerning each market basket grouping by embedding in said aggregate sales data an "imaginary item" for each characteristic(s) displayed by each market basket grouping. However, Jacobi et al. discloses using a persons' shopping cart items to suggest or recommend another item to them (see column 4, lines 1-16, and column 6, lines 7-30, and 52-60). Jacobi et al. determines what items to recommend by using past consumer records and tables that show market basket groupings (see column 9, lines 59-67, through column 10, lines 1-10). Jacobi et al.'s internal system is using the aggregate sales data with an "imaginary item" and determining if this item will correlate with the other items in shopping cart. If the "imaginary item" does highly correlate with the other items in the basket, then it is recommended or suggested to the shopper. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to create an "imaginary item" with each set of aggregate data in the market basket as it would allow Chen et al. to perform more data analysis and further fit individual shopper's needs. One would be motivated

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to have Chen et al. contain an "imaginary item" as it allows one to further determine correlating data and place the various users in accurate groupings to increase sales.

As per claims 2, 7, and 12, Chen et al. disclose all the limitations of claim 1, wherein said method further comprises the steps of:

Performing associating analysis on said enhanced market basket grouping data to generate association rules and frequently itemsets (see column 5, lines 62-67, through column 6, lines 1-122, association analysis is performed generating rules and itemsets); and

Displaying and archiving said association rules and frequent itemsets (see column 5, lines 64-66, the customer analysis functions are rules and can be displayed and archived).

As per claims 3, 8, and 13, Chen et al. disclose all the limitations of the method set forth in claim 2, further comprising the step of: processing said association rules and frequent itemsets to develop conclusions about said marketing research data (see column 3, lines 51-67, the rules and functions of the itemsets are used to develop conclusions about the marketing research data).

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As per claim 4, 9, and 14, Chen et al. disclose all the limitations of the method as set forth in claim 2, wherein said aggregate sales data comprises merchandise information, said merchandise information including:

As identification element identifying each sold item (see figure 4B, column 9, lines 52-63, the data contains information about the sold items);

Transactional information corresponding to each sold item (see figure 4B, column 9, lines 52-63, the data contains information about the transactions and billing information of each item); and

Financial information corresponding to each sold item and wherein said merchandise information is input to a merchandise taxonomy to establish logical links between said identification elements, said transactional information, and said financial information so that said merchandise information can be utilized for market basket analysis (see figure 4B, and column 9, lines 64-67, through column 10, lines 1-9, sales information is associated with the elements and can be utilized for analysis).

As per claim 5, 10, and 15, Chen et al. disclose all the limitations of the method as set forth in claim 4, wherein said aggregate sales data comprises information linking the merchandise information of each sold item in a particular market basket to all other items in said particular market basket (see figure 4B, column 9, lines 52-63, the data contains information about the sold items and this information is linked together in the data model).

Response to Arguments

3. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Walter et al. (P.N. 6,334,110) discusses a system and method for analyzing customer transactions.

Jenkins (P.N. 6,285,983) discusses a marketing system and method for aggregating customer information and using targeted marketing.

Riordan et al. (P.N. 6,708,891) discusses a system and method for POS marketing and analyzing data.

Agarwal et al. (P.N. 6,311,179) discusses a system and method for associating items in a database.

Gard (P.N. 6,009,407) discusses a method for analyzing market data.

"Every Transaction Tells a Story" in Chain Store Age Executive with Shopping Age Center discusses a method for market basket analysis and why it is beneficial.

Data Mining is More Than Beer and Diapers" in Chain Store Age discloses market basket analysis and modeling potential variations.

Moad, in "Mining a New Vain" discloses market basket analysis and predicting customer behavior.

Linoff in "Data Mining" discloses predictive data mining.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Rebecca Bachner** whose telephone number is 703-305-1872. The examiner can normally be reached on Monday - Friday from 8:30am to 5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Tariq Hafiz** can be reached on **(703)305-9643**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Receptionist** whose telephone number is **(703) 308-1113**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington D.C. 20231

or faxed to:

(703) 305-7687 Official communications; including After Final communications labeled "Box AF"

(703) 746-7306 Informal/Draft communications, labeled "PROPOSED" or " DRAFT"

Hand delivered responses should be brought to Crystal Park 5, 2451

Crystal Drive, Arlington, VA, 7th floor receptionist.

RMB
RMB
October 24, 2002

Susanna Diaz
Susanna Diaz
Patent Examiner
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